ROUTING AND RECORD SHEET

SUBJECT: (Optional)

CIA Computer Study Panel Meeting with DDCI and EXDIR 26 Feb 85, 1400

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FROM:
Harry E. Fitzwater
Deputy Director for Administration
7 D 24 Hqs

NO. DDA 85-0667

DATE 25 February 1985

TO: (Officer designation, room number, and building)	DATE RECEIVED	DATE FORWARDED	OFFICER'S INITIALS	COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)
1. ER 7 E 12 Hqs	2 5 FEB 1985		Cmf	Attached is a list of CIA Computer Study Panel Members with bios on each. Mr. Croke will not be at the meeting and it is possible Dr. Ware won't be able to attend either.
2.				
3. EXDIR (Separate Copy Attached)				
4.				Atts *Exec summary added*
5. DDCI	0 5 MAR 1985			
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CIA COMPUTER STUDY PANEL MEMBERS

yes 1. C. Danny May (Panel Chairman)
Computer Sciences Corporation

yes *won't attend* 2. James Croke
Vice President, Bedford Operations
MITRE Corporation

maybe 3. James Burrows
Director of the Institutes of Computer Science and Technology
National Bureau of Standards

yes 4. [ ]   STAT
Chief Scientist
National Security Agency

yes 5. Frederic G. (Ted) Withington
Vice President
Arthur D. Little, Inc.

Probably not 6. Dr. Willis Ware
Corporate Research Staff
Rand Corporation

yes 7. [ ]   STAT
Chief of the Processing and Analysis Group
Office of Research and Development
Central Intelligence Agency

C. Danny May of Computer Sciences Corporation

Mr. May had 34 years in Federal Government service. From 1975 to 1980, he served as Associate Deputy Director for Administration of the CIA. In 1980, he left the Government and joined Computer Sciences Corporation (CSC). From 1980 to 1982, he was Assistant to the President of CSC. He was an Operations Director at CSC from 1982 to 1984 and is currently a Senior Member of the Executive Staff.

Mr. May took engineering coursework at Iowa State College and MIT, and graduated with honors from the Industrial College of the Armed Services.

Mr. James Croke of MITRE Corporation

Mr. Croke is currently Vice President of Bedford Operations for MITRE Corporation. He is a consultant for DI/SOVA and was formerly a consultant to DDS&T/OSO and DDCT/Collection Tasking. He is involved in providing technical services to U.S. Government Agencies on programs which relate to foreign military, intelligence, counter intelligence, and security activities. Prior to joining MITRE Corporation in 1959, Mr. Croke held positions at Bell Aircraft, Raytheon, and MIT Lincoln Labs, and he has taught at Carnegie-Mellon University. At MITRE, Mr. Croke held department head and director positions leading up to his current Vice President position.

James Burrows of National Bureau of Standards

Mr. Burrows is currently Director of Computer Sciences and Technology for the National Bureau of Standards. He has held this position since 1979. From 1972 to 1979, Mr. Burrows was Associate Director of the Office of Computer Resources of the U.S. Air Force. Prior to 1972, Mr. Burrows worked at MITRE Corporation and Lincoln Laboratories.

Mr. Burrows holds a B.S. from MIT in engineering and an M.S. in mathematics from the University of Chicago.

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Frederic G. (Ted) Withington of Arthur D. Little, Inc.

As Vice President of Arthur D. Little, Inc. (ADL), Mr. Withington had performed studies of virtually every aspect of information technology for over 200 user and vendor organizations. Since 1964, he has directed ADL data processing industry and forecasting activities which has led to a variety of expert witness assignments. He has written 4 books and over 30 articles and papers which have been translated and published in most parts of the world. Among his numerous professional activities, he has been a visiting professor at the Harvard Business School and a director of Addison-Wesley Publishing Company.

Prior to joining ADL, Mr. Withington was Eastern Regional Manager of Technical Services for the Burroughs Corporation. Before that, he managed a programming group at the National Security Agency. He has a B.A. in physics from Williams College.

Dr. Willis Ware of Rand Corporation

Dr. Ware holds degrees in electrical engineering from Princeton University, Massachusetts Institute of Technology, and The University of Pennsylvania. Dr. Ware joined the Rand Corporation in 1952 as a staff member responsible for various engineering aspects. He has subsequently served in various career services including Deputy Vice President responsible for a broad program of interdisciplinary research conducted by Rand for the United States Air Force. Additionally, Dr. Ware was one of three White House appointees to the Privacy Protection Study Commission created by Public Law in 1974. In 1975, Dr. Ware was chosen as a co-recipient of the Data Processing Management Association's Man-of-the-Year award for outstanding contributions to the field of computer science. Dr. Ware currently interacts with the National Telecommunications and Information Agency, and other parts of Federal Government on national information policy, computer security matters, and personal privacy.

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EXECUTIVE SUMMARY

Introduction

A Panel, convened at the direction of the CIA Deputy Director for Administration, studied the planned expansion of Office of Data Processing (ODP) computer systems with the goal of determining the most feasible and cost-effective method to prevent the continuing displacement of personnel in the Headquarters building.

The Baseline information which provided the foundation for the study included:

- ODP's estimates of ADP system growth through the year 2001.

- ODP and Office of Communications (OC) plans for satisfying that growth.

- Plans for allocation and use of computer-grade space in the new Headquarters building addition.

None of the basic assumptions in the ODP plans were challenged by the Panel; therefore, the findings and recommendations in this report are based on the premise that ODP's growth projections are reasonable and that their plans for satisfying the demand are similarly reasonable ... or, at least, that alternatives which might be better on some dimensions did not differ materially with respect to space needs.

Findings

- ODP plans to retain 36,000 sq. ft. of computer space in the present Headquarters, even after the computer-grade space in the new addition becomes available. The Panel sees no benefit in this approach, and urges that all ODP computer space in the present Headquarters be released. This would assure effective use of available space in the new addition, which has TEMPEST features, and is specifically designed for machines.

- The computer-grade space available to ODP (150,000 sq. ft.) in the new Headquarters addition could satisfy all growth requirements up to the year 1995, but not without displacing people. Initially, (1987), ODP plans to use 60,000 sq. ft. of this space for computers, with the remainder used for ODP office space. As computer space needs grow, the ODP people would be displaced to make room for the computers.

- Improved technology (such as disk drives with greater storage density and more powerful computers) make better use of space. More improvements are forecast. ODP plans include the acquisition of this improved equipment as it becomes available. These measures can slow the rate at which computers will displace personnel, but not stop it.

- As long as the Agency was committed to locating all its computers in the Headquarters building, there was no alternative but displacement of people to accommmodate computer growth. The displaced people could be readily accommodated elsewhere, as is evidenced by the ___ off-campus locations for offices.

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- While there may have been valid reasons in the past for not doing so, today it is technically possible to relocate all or part of ODP's computer files and processing capability to a remote site—preferably in the nearby Maryland or Virginia areas.

- The security, communications, and operational problems associated with such a remote operation are manageable, although the risks would be high if the entire ODP processing capability were to be located to a remote off-campus site.

- Dividing ODP services into a local and a remote operation will have a major impact on the ADP system architecture, but not to the extent that technical risks are high. There is a significant peripheral benefit from a divided operation. With proper planning and design, the remote facility and the Headquarters facility can back each other up, providing protection against a catastrophe at either site.

Recommendations

The Panel recommends that:

- The Agency set a ceiling of 100,000 sq. ft. of space for ODP computers in the Headquarters compound, which would be obtained from the computer-grade space in the new Headquarters building addition;

- The 47,462 sq. ft. of computer space in the present Headquarters building be released for use as office space;

- An expandable, computer-grade facility of initially 50,000 sq. ft. plus support space be provided (purchased or leased) off-site by 1992 for ODP computers and peripheral equipment;

- The off-site facility be located at any one of several possible sites in nearby Maryland or Virginia;

- The off-site facility be used to provide services which are less communications-intensive (i.e., Community, development, and possibly batch applications);

- The off-site facility be linked to the Headquarters building via redundant, secure, high bandwidth communications;

- Both the off-site facility and the Headquarters building contain computer systems sufficiently similar to each other to provide mutual backup;

- Less critical, less frequently used computer files be relocated to data storage facilities in the off-site facility, which could be retrieved on-line by the on-site computers;

- A modified system architecture (computing, communications, and user services) with its implementation plan be developed by ODP and OC to support the relocation by 1992 of some computing services off-site;

- All future ODP budgets for procurement of large computer systems be accompanied by communications plans from OC and facility plans from OL; and,

- The user offices be required to budget for the start-up costs (computer procurement, applications development, and facility expansion) for major new ADP systems. (The Directorate for Administration would budget for common user systems serving many offices.)

Costs

Rough budget estimates (highly site dependent, recurring costs not included, and no addition for inflation) for implementing the above recommendations are as follows:

- Construction of a new off-site facility, including security and support - $44M
- Providing redundant, secure communications to remote site - $2M

The Panel notes that locating the new remote facility on the Langley compound rather than off-site could eliminate most of the communications costs and risks associated with a remote operation. The Panel did not recommend the Langley location for two reasons:

- Local community opposition might indefinitely delay its construction.

- The remote facility's benefits as a backup would be partially lost.